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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,544	07/29/2003	Tongbi Jiang	303.343US7	7498
21186	7590	09/30/2005		
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH 1600 TCF TOWER 121 SOUTH EIGHT STREET MINNEAPOLIS, MN 55402			EXAMINER LAMB, BRENDA A	
			ART UNIT	PAPER NUMBER
			1734	

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/630,544

Applicant(s)

JIANG ET AL.

Examiner

Brenda A. Lamb

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/29/2004 and 5/28/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-14 and 40-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-14 and 40-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/28/04 & 7/29/03</u> . | 6) <input type="checkbox"/> Other: _____ |

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 9-12, 41 and 43 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 and 8-11 of copending Application No. 10/643,567. Although the conflicting claims are not identical, they are not patentably distinct from each other because Jiang et al claims a semiconductor die stencil having a top surface, a bottom surface and one or more side surfaces, the bottom surface having a surface tension less than a surface tension of the top surface and less than a surface tension of the side surfaces. With respect to claims 10-12, the above cited application claims the first surface is a bottom surface and the second surface is a top surface. With respect to claims 41 and 43, Jiang et al claims the bottom surface is a polymeric material.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 9-14 and 40-52 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-46 of U.S.

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Patent No. 6,607,599 (Jiang et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because Jiang et al claims a semiconductor die stencil to assist in application of a printable adhesive in a desired pattern onto a semiconductor die comprising: a sheet of material or stencil pattern, the sheet having a top surface and a bottom surface; a plurality of apertures in the sheet of material defining a desired pattern for application of the printable adhesive; and a coating applied to the bottom surface of the sheet to retard spreading of the printable adhesive onto the bottom surface of the sheet. Jiang et al claims that the sheet of material is impervious to the adhesive and claims stencil or sheet of material is stainless steel. Jiang et al is silent to the coating being applied to the bottom of the sheet in a manner so as to obstruct of the flow of printable adhesive through the apertures onto the die and thereby reads on the claimed negative limitation of coating the sheet of material without obstruction of the adhesive through the apertures of the sheet. Jiang et al claims both the coating and the material have a surface tension, the surface tension of the coating being less than the surface tension of the material. Thus claims 9-12 and 46-47 are obvious over Jiang et al. With respect to claims 41, 43, 48-49, Jiang et al claims the surface tension of the coating, a polymeric material – polytetrafluoroethylene, is at least an order of magnitude less than the surface tension of the material which is claimed as stainless steel. With respect to claim 13, Jiang et al claims the side surface of the stencil are coated with one material and the bottom surface of the stencil is coated with another different material such that surface tension of the bottom surface relative to the side surface is within the scope of the claim. With respect to claims 40

and 42, Jiang et al claims the top surface of the stencil is coated with a coating material within the scope of the claim. With respect to claim 14, 44, 45 and 50-52, Jiang et al claims a semiconductor die stencil having a sheet of material or stencil pattern, the sheet having a top surface and a bottom surface, the first surface having a surface tension greater than a surface tension of the second surface to promote adhesive running onto a semiconductor die; a plurality of apertures in the sheet of material defining a desired pattern for application of the printable adhesive. Jiang et al claims a semiconductor die stencil having a second surface is polymeric and first surface is coating within the scope of the claims

Claims 9-12, 14 and 40-52 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-24 of U.S. Patent No. 6,641,669 (Jiang et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because Jiang et al claims a stencil/screen/pattern to assist in application of a printable adhesive in a desired pattern onto a substrate comprising: a sheet of material or stencil pattern, the sheet or pattern having a top surface and a bottom surface; a plurality of apertures in the sheet of material defining a desired pattern for application of the printable adhesive; and a polymeric coating applied to the bottom surface of the sheet to retard spreading of the printable adhesive onto the bottom surface of the sheet. Jiang et al claims both the coating and the material have a surface tension, the surface tension of the coating being less than the surface tension of the material such as set forth in claims 9-12, 41, 43, 46-47 and 49. Jiang et al fails to claim that the sheet of material is impervious to the

adhesive but the claimed stencil or sheet of material which is stainless steel is impervious to adhesive. Jiang et al is silent to the coating being applied to the bottom of the sheet in a manner so as to obstruct of the flow of printable adhesive through the apertures onto the die and thereby reads on the claimed negative limitation of coating the sheet of material without obstruction of the adhesive through the apertures of the sheet. Further with respect to claim 14, 40, 44-45 and 50-52, Jiang et al claims the stencil is further comprised of a layer to promote spreading of the printable material and the layer is selected from the group consisting of one of tungsten, tungsten carbide, tungsten nitride. Jiang et al is capable of its end use as a semiconductor stencil since it claims every structural element of the claimed stencil. With respect to claim 48, Jiang et al claims the surface tension of the coating which is claimed as being polytetrafluoroethylene is at least an order of magnitude less than the surface tension of the material which is claimed as stainless steel.

Claims 9-14 and 40-52 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-77 of U.S. Patent No. 6,669,781 (Jiang et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because Jiang et al claims a stencil/screen/pattern to assist in application of a printable adhesive in a desired pattern onto a substrate comprising: a sheet of material or stencil pattern, the sheet or pattern having a top surface and a bottom surface; a plurality of apertures in the sheet of material defining a desired pattern for application of the printable adhesive; and a polymeric coating applied to the bottom surface of the sheet to retard spreading of the

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printable adhesive onto the bottom surface of the sheet. Jiang et al claims both the coating and the material have a surface tension, the surface tension of the coating being less than the surface tension of the material such as set forth in claims 9-12, 41, 43, 46-47 and 49. Jiang et al fails to claim that the sheet of material is impervious to the adhesive but the claimed stencil or sheet of material which is stainless steel is impervious to adhesive. Jiang et al is silent to the coating being applied to the bottom of the sheet in a manner so as to obstruct of the flow of printable adhesive through the apertures onto the die and thereby reads on the claimed negative limitation of coating the sheet of material without obstruction of the adhesive through the apertures of the sheet. Further with respect to claim 13-14, 40, 44-45 and 50-52, Jiang et al claims the stencil is further comprised of a coating layer to promote spreading of the printable material applied to the top surface and side walls of the sheet of material and the layer is selected from the group consisting of one of tungsten, tungsten carbide, tungsten nitride. Jiang et al is capable of its end use as a semiconductor stencil as set forth in claims 9-14, 40-47 and 49-52 since it claims every structural element of the claimed stencil. With respect to claim 48, Jiang et al claims the surface tension of the coating which is claimed as being polytetrafluoroethylene is at least an order of magnitude less than the surface tension of the material which is claimed as stainless steel.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 46-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 59-76868.

Japan '868 teaches a die stencil to assist in application of a printable material in a desired pattern onto a substrate comprising: a sheet of metal material which is impervious to a printable material or adhesive applied thereto; a plurality of apertures in the sheet of material defining a desired pattern for application of the printable material; and a coating applied to surfaces of the sheet of material including bottom surface of the sheet to retard spreading of the printable material onto surfaces of the stencil

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including the bottom surface of the sheet. Japan '868 is silent as to the obstruction of the flow of printable material through the apertures and thereby reads on the negative limitation that the material flows without obstruction of the flow of printable material through the apertures. Japan '868 teaches the coating is a polymeric material which within the scope of claims 8 and 11, specifically tetrafluoroethylene which is identical to that disclosed applicant at page 9 lines 12-22, and the material of construction of the sheet of material is within scope of that disclosed by applicant at page 9 lines 6-11 and thereby inherently reads on the claimed limitations of the coating and the sheet of metal material (surface tension properties) such as set forth in claims 46-49. Japan '868 teaches the sheet of material is comprised of metal but fails to teach that sheet of material is constructed from stainless steel. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the stencil base 1 from stainless steel since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. Japan '868 is capable of the end use of being aligned above the semiconductor die and capable of the end use of assisting in the application of a printable material or a printable adhesive material in a desired pattern onto a semiconductor die since it teaches every claimed element of the apparatus/die stencil as set forth in claims 46-49.

Claims 9-13, 41, 43 and 46-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 59-76868 in view of Hefe.

Japan '868 teaches a die stencil to assist in application of a printable material in a desired pattern onto a substrate comprising: a sheet of metal material which is impervious to a printable material or adhesive applied thereto; a plurality of apertures in the sheet of material defining a desired pattern for application of the printable material; and a coating applied to surfaces of the sheet of material including bottom surface of the sheet to retard spreading of the printable material onto surfaces of the stencil including the bottom surface of the sheet. Japan '868 is silent as to the obstruction of the flow of printable material through the apertures and thereby reads on the negative limitation that the material flows without obstruction of the flow of printable material through the apertures. Japan '868 teaches the coating is a polymeric material which within the scope of claims 8 and 11, specifically tetrafluoroethylene which is identical to that disclosed applicant at page 9 lines 12-22, and the material of construction of the sheet of material is within scope of that disclosed by applicant at page 9 lines 6-11 and thereby inherently reads on the claimed limitations of the coating and the sheet of metal material (surface tension properties) such as set forth in claims 46-49. Japan '868 teaches the sheet of material is comprised of metal but fails to teach that sheet of material is constructed from stainless steel. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the stencil base 1 from stainless steel since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice and especially since Hefele teaches the use of a stainless steel as the stencil base 1 for a coated pattern stencil. In re

Leshin, 125 USPQ 416. Japan '868 is capable of the end use of being aligned above the semiconductor die and capable of the end use of assisting in the application of a printable material or a printable adhesive material in a desired pattern onto a semiconductor die since it teaches every claimed element of the apparatus/die stencil as set forth in claims 46-49. With respect to claim 9-13, 41 and 43, Japan '868 fails to teach a polymeric coating is applied to a single surface of the stencil base such as the bottom surface. However, it would have been prima facie obvious to coat a single surface of the Japan '868 stencil base 1 such as the surface which is most likely to come into contact with the coating material for the obvious reason to reduce manufacturing cost associated with stencil especially in view of Hefele which teaches applying a protective coating to surfaces of the base stencil which are most likely to come in contact with the abrasive coating material. Note the recitation that the bottom surface has a surface tension which is less than the top surface and side surface does not structurally further limit the claimed apparatus over the above cited combination of references since which surfaces of the Japan '868 which are coated are dependent on the end use requirements of the stencil.

Claims 14, 40 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 59-76868 in view of Hefele and Caincross et al.

Japan '868 is applied for the reasons noted above but fail to teach the top surface or stencil base 1 is select from the group set forth in claim metal within the scope of the above cited. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the stencil base 1 from

nickel since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice and especially since Cairncross et al teaches the use of nickel as a stencil base material.

Claims 46-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Pryor et al.

Pryor et al teaches a die stencil to assist in application of a printable material in a desired pattern onto a substrate comprising: a sheet of aluminum material which is impervious to a printable material applied thereto; a plurality of apertures in the sheet of material defining a desired pattern for application of the printable material; and a coating applied to at least one top or one bottom surface of the sheet to retard spreading of the printable material onto the at least one top or one bottom surface of the sheet. Pryor et al is silent as to the obstruction of the flow of printable material through the apertures and thereby reads negative limitation that the material flows without obstruction of the flow of printable material through the apertures. Pryor et al teaches the coating is a polymeric material which within the scope of claim 49, specifically tetrafluoroethylene which is identical to that disclosed applicant at page 9 lines 12-22, and the material of construction of the sheet of material is within scope of that disclosed by applicant at page 9 lines 6-11 and thereby inherently reads on the claimed limitations of the coating and the sheet of metal material (surface tension properties) such as set forth in claims 2-3 and 9-10. Pryor et al teaches the sheet of material is comprised of metal but fails to teach that sheet of material is constructed from stainless steel. However, it would have

been obvious to one having ordinary skill in the art at the time the invention was made to construct the stencil base 1 from stainless steel since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. Pryor et al is capable of the end use of being aligned above the semiconductor die and assisting in the application of a printable material or a printable adhesive material in a desired pattern onto a semiconductor die since it teaches every claimed element of the apparatus/die stencil set forth in claims 46-49.

Claims 46-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Pryor et al in view of Hefele.

Pryor et al teaches a die stencil to assist in application of a printable material in a desired pattern onto a substrate comprising: a sheet of aluminum material which is impervious to a printable material applied thereto; a plurality of apertures in the sheet of material defining a desired pattern for application of the printable material; and a coating applied to at least one top or one bottom surface of the sheet to retard spreading of the printable material onto the at least one top or one bottom surface of the sheet. Pryor et al is silent as to the obstruction of the flow of printable material through the apertures and thereby reads negative limitation that the material flows without obstruction of the flow of printable material through the apertures. Pryor et al teaches the coating is a polymeric material which within the scope of claim 49, specifically tetrafluoroethylene which is identical to that disclosed applicant at page 9 lines 12-22, and the material of construction of the sheet of material is within scope of that disclosed by applicant at

page 9 lines 6-11 and thereby inherently reads on the claimed limitations of the coating and the sheet of metal material (surface tension properties) such as set forth in claims 2-3 and 9-10. Pryor et al teaches the sheet of material is comprised of metal but fails to teach that sheet of material is constructed from stainless steel. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the stencil base 1 from stainless steel since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice and if necessary since Hefele teaches the use of a stainless steel as the stencil base 1 for a coated pattern stencil. In re Leshin, 125 USPQ 416. Pryor et al is capable of the end use of being aligned above the semiconductor die and assisting in the application of a printable material or a printable adhesive material in a desired pattern onto a semiconductor die since it teaches every claimed element of the apparatus/die stencil set forth in claims 46-49. . With respect to claim 9-13, 41 and 43, Pryor et al fails to teach a polymeric coating is applied to a single surface of the stencil base such as the bottom surface. However, it would have been prima facie obvious to coat a single surface of the Pryor et al stencil base 1 such as the surface which is most likely to come into contact with the coating material for the obvious reason to reduce manufacturing cost associated with stencil especially in view of Hefele which teaches applying a protective coating to surfaces of the base stencil which are most likely to come in contact with the abrasive coating material. Note the recitation that the bottom surface has a surface tension which is less than the top surface and side surface does not structurally further limit the

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claimed apparatus over the above cited combination of references since which surfaces of the Japan '868 which are coated are dependent on the end use requirements of the stencil.

Claims 14 and 50-51 are rejected under 35 U.S.C. 102(b) as being anticipated by Hefele.

Hefele teaches a die stencil to assist in application of a printable material in a desired pattern onto a substrate comprising: a sheet of material which is impervious to a printable material applied thereto; a plurality of apertures in the sheet of material defining a desired pattern for application of the printable material; and a coating applied to at least one surface of the sheet to promote spreading of the printable material.

Hefele is capable of the end use of assisting in the application of a printable adhesive material in a desired pattern onto a semiconductor die since it teaches every claimed element of the apparatus/die stencil as set forth in claim 50. With respect to claim 51, coating and sheet have a surface tension relative to each other which is within the scope of the claim. With respect to claim 14, Hefele infers that only the top surface and side wall surfaces of the apertures of the stencil have the coating while its bottom surface may be uncoated. Therefore, the Hefele stencil with coated only on the top surface and side wall surfaces of the apertures of the stencil reads on applicant's claim stencil having a first surface with coating thereon which provides a surface tension greater than the surface tension of the uncoated surface of the stencil. Thus Hefele teaches every element of the claimed stencil.

Claims 45 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hefele in view of Mehregany et al.

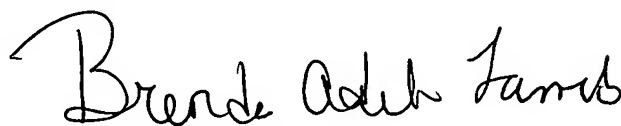
Hefele is applied for the reasons noted above. Hefele fails to teach a coating within the scope of the claim. However, it would have been obvious to modify Hefele stencil by substituting its wear resistance coating with another known wear resistant coating such as taught by Mehregany et al (tungsten carbide) for the obvious reason to expect similar end results (see column 4 lines 23-28).

Claims 14, 40 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pryor et al in view of Hefele and Caincross et al.

Pryor et al is applied for the reasons noted above but fail to teach the top surface or stencil base is select from the group set forth in claim metal within the scope of the above cited. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the Pryor et al stencil base from nickel since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice and especially since Cairncross et al teaches the use of nickel as a stencil base material.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda A. Lamb whose telephone number is 571-272-1231. The examiner can normally be reached on Monday and Wednesday thru Friday with alternate Tuesdays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla, can be reached on (571) 272-1231. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink that reads "Brenda A Lamb". The signature is written in a cursive, flowing style.

Brenda A Lamb
Examiner
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